

AMENDMENTS TO THE CLAIMS

1. (currently amended) A polyethylene composition with multimodal molecular mass distribution, which has a density in the range of from 0.950 to 0.956 g/cm³ at 23 °C and, an MFR_{190/21.6} in the range of from 1.5 to 3.5 dg/min and which comprises from 35 to 45 % by weight of a low-molecular-mass ethylene homopolymer A₂; from 34 to 44 % by weight of a high-molecular-mass copolymer B made from ethylene and ~~from another~~ a first 1-olefin comonomer having from 4 to 8 carbon atoms; and from 18 to 26 % by weight of an ultrahigh-molecular-mass ethylene copolymer C containing a second 1-olefin comonomer, wherein all of the percentage data are based on the total weight of the molding composition.
2. (currently amended) ~~A~~ The polyethylene molding composition as claimed in claim 1, wherein the first 1-olefin comonomer is present in an amount ~~high-molecular-mass copolymer B contains small proportions of less than 0.1 % by weight of co-monomer having from 4 to 8 carbon atoms, based on the weight of copolymer B, and wherein the ultrahigh-molecular-mass ethylene copolymer C contains an amount in the range~~ the second 1-olefin comonomer is present in an amount from 0.1 to 0.6 % by weight of ~~co-monomers~~, based on the weight of copolymer C.
3. (currently amended) ~~A~~ The polyethylene composition as claimed in claim 1 ~~or 2, which, as a co-monomer, contains~~ wherein the first 1-olefin and second 1-olefin comonomers are independently selected from 1-butene, 1-pentene, 1-hexene, 1-octene, 4-methyl-1-pentene, or mixtures of these.
4. (currently amended) ~~A~~ The polyethylene composition as claimed in ~~one or more of claims 1 to 3~~ claim 1, which has a viscosity number VN_{tot} of from 500 to 600 cm³/g measured to ISO/R 1191 in decalin at 135 °C.

5. (currently amended) ~~A~~The polyethylene composition as claimed in ~~one or more of claims 1 to 4~~claim 1, which has a swell ratio in the range from 180 to 220 %, ~~and~~ a notched impact strength (ISO) in the range from 60 to 90 kJ/m², and a stress-crack resistance (FNCT) in the range from 15 to 25 h.

6. (currently amended) A process for producing a polyethylene composition with multimodal molecular mass distribution, which has a density in the range of from 0.950 to 0.956 g/cm³ at 23 °C, an MFR_{190/21.6} in the range of from 1.5 to 3.5 dg/min and which comprises from 35 to 45 % by weight of a low-molecular-mass ethylene homopolymer A; from 34 to 44 % by weight of a high-molecular-mass copolymer B made from ethylene and a first 1-olefin comonomer having from 4 to 8 carbon atoms; and from 18 to 26 % by weight of an ultrahigh-molecular-mass ethylene copolymer C containing a second 1-olefin comonomer, wherein all of the percentage data are based on the total weight of the molding composition, wherein as claimed in one or more of claims 1 to 5, in which the monomers are polymerized in slurry in a temperature range of from 60 to 90 °C at a pressure in the range of from 0.15 to 1.0 MPa, and in the presence of a high-mileage Ziegler catalyst composed of a transition metal compound and of an organoaluminum compound, which comprises the process comprising conducting polymerization in three stages, wherein the molecular mass of each polyethylene prepared in each stage is regulated with the aid of hydrogen, thereby forming a hydrogen concentration in each stage.

7. (currently amended) ~~A~~The process as claimed in claim 6, wherein the hydrogen concentration in the first polymerization stage is adjusted so that ~~the~~a viscosity number VN₁ of the low-molecular-mass ~~polyethylene~~ethylene homopolymer A is in the range of from 160 to 220 cm³/g.

8. (currently amended) ~~A~~The process as claimed in claim 6 ~~or 7~~, wherein the hydrogen concentration in the second polymerization stage is adjusted so that ~~the~~a viscosity number VN₂ of ~~the~~a mixture of polymer A and polymer B is in the range of from 230 to 320 cm³/g.

9. (currently amended) ~~A~~The process as claimed in any of claims 6 to 8~~claim 6~~, wherein the hydrogen concentration in the third polymerization stage is adjusted so that ~~the~~a viscosity number VN₃ of ~~the~~a mixture of polymer A, polymer B, and polymer C is in the range of from 500 to 600 cm³/g.
10. (currently amended) ~~The use~~A process for producing an L-ring drum having a capacity in a range from 50 to 250 dm³ (l) from ~~of~~a polyethylene composition with multimodal molecular mass distribution, which has a density in the range of from 0.950 to 0.956 g/cm³ at 23 °C, an MFR_{190/21.6} in the range of from 1.5 to 3.5 dg/min and which comprises from 35 to 45 % by weight of a low-molecular-mass ethylene homopolymer A; from 34 to 44 % by weight of a high-molecular-mass copolymer B made from ethylene and a first 1-olefin comonomer having from 4 to 8 carbon atoms; and from 18 to 26 % by weight of an ultrahigh-molecular-mass ethylene copolymer C containing a second 1-olefin comonomer, wherein all of the percentage data are based on the total weight of the molding composition~~as claimed in one or more of claims 1 to 5 for producing L-ring drums with a capacity in the range of from 50 to 250 dm³ (l), where the polyethylene composition is first plasticized, the process comprising:~~
- (a) plasticizing the polyethylene composition in an extruder in a temperature range of from 200 to 250 °C; ~~and is then extruded~~
 - (b) extruding the product of step (a) through a die into a mold; ~~where it is blown up and then cooled and solidified~~
 - (c) blowing up the product of step (b) in a blow molding apparatus, thereby forming the L-ring drum; and
 - (d) solidifying the L-ring drum by cooling.